

ANALYST:		VPDES NO.	
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Instrument: _____

Parameter: Total Residual Chlorine (TRC)

Method: DPD Colorimetric

1/08

METHOD OF ANALYSIS:

	18 th Edition of Standard Methods 4500-Cl G
	21 st Edition of Standard Methods 4500-Cl G (00)

		Y	N
1)	Is a certificate of operator competence or initial demonstration of capability available for <u>each analyst/operator</u> performing this analysis? NOTE: Analyze 4 samples of known TRC. Must use a lot number or source that is different from that used to prepare calibration standards. May not use Spec Checks TM . [SM 1020 B.1]		
2)	Is KI solution stored in a brown bottle and discarded if growth appears and/or when it turns yellow? [3]		
3)	Is the DPD reagent stored in the dark and discarded if it discolors? [3]		
4)	Is absorbance of DPD reagent checked at 515 nm and discarded when absorbance if .002/cm? [3]		
5)	Is buffer solution free of contamination or growths? [3]		
6)	If a spectrophotometer is used, is it set up for use at 515 nm and provide a light path of 1 cm or longer [2.a.1]		
7)	If a filter photometer is used, is it equipped with a filter having maximum transmission in the range of 490 to 530 nm and provide a light path of 1 cm or longer? [2.a.2]		
8)	Is a calibration curve developed and a daily verification performed using a high and a low standard? NOTE: May use manufacturer's installed calibration and commercially available chlorine standards for daily calibration verifications. [18 th ed 1020 B.5; 21 st ed 4020 B.2.b]		
9)	Are 0.5 mL of buffer solution and 0.5 mL of DPD reagent used per 10 mL of sample? NOTE: May use a commercially available combined reagent in powder form. [4.a.1]		
10)	Is sample added after buffer solution? [4.a.1]		
11)	Is KI added? NOTE: To read TRC in one reading, add full amount of KI at start, with specified amounts of buffer reagent and DPD indicator. Read color after 2 minutes. [4.e]		
12)	Is the prepared sample allowed to stand for 2 minutes and analyzed, if not otherwise specified by the manufacturer? [4]		
13)	Are cell clean and in good condition?		
14)	Is a duplicate sample analyzed after every 20 samples if citing 18 th or 19 th Edition [1020 B.6] or daily for 20 th or 21 st Edition [4020 B.3.c]?		
15)	Are samples diluted to fall within the applicable range? [4.b]		
16)	Are samples analyzed within 15 minutes of collection? [40 CFR Part 136]		
17)	Is Laboratory Check/Control Sample (LCS) analyzed quarterly? [SM 18 th ed 1020 C.1; 21 st ed 1020 C.1] NOTE: Requirement to analyze a Laboratory Check/Control Sample (LCS) quarterly is fulfilled by the daily analyses of a commercially available chlorine standard such as HACH's Spec [√] TM .		

PROBLEMS:

TRC dpd-c